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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,582	04/07/2000	Arthur E. Uber, III	23578-0010	2112

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EXAMINER	
SMITH, RUTH S	

ART UNIT	PAPER NUMBER
3737	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/545,582	UBER, III ET AL.	
	Examiner	Art Unit	
	Ruth S. Smith	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *54-56,59,62 and 117-128* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *54-56,59,62 and 117-128* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/15/06, 1/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 54-56,59 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al and "Patient Anesthesia and Monitoring". Applicant discloses that it is known to provide a patient infusion system for use with an MRI system having an infusion apparatus positioned within a shielded room and the system controller located external to the room. The infusion apparatus includes an injector and a motor to operate the injector. The prior art disclosed by applicant fails to disclose the use of a non-rigid drive connection or a communication link that comprises a link adapted to be substantially non-reactive with the MRI system. The use of a flexible drive connection between a motor and the injector that it controls is well known as seen in Saini et al. It would have been obvious to one skilled in the art to have modified the prior art device such that the connection between the motor and the injector includes a flexible drive connection. Such a modification merely involves the substitution of one well known type of drive connection for another. The use of fiber optic cables in MRI systems to prevent EM interference is old and well known as seen

for example in "Patient Anesthesia and Monitoring". It would have been obvious to one skilled in the art to have further modified the prior art disclosed by applicant such that a fiber optic cable is used to provide a communications link between the external controller and the injector unit. The advantage of such is to prevent EM interference from affecting the system operation. The "Patient Anesthesia and Monitoring" article discloses the use of a window in the shielded room through which the communications link can provide energy. The use of such a window in an MRI suite is old and well known to allow the operator to view the patient during the scanning procedure.

Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al and "Patient Anesthesia and Monitoring" as applied to claim 54 above, and further in view of MARK V Injection System Brochure. Saini et al disclose the use of the Mark V injection system. The injection system includes two syringes and a drive mechanism. It would have been obvious to one skilled in the art to have further modified the prior art disclosed by applicant such that the injection system includes two drive mechanisms, one for each syringes. Such a modification allows for faster operation of the injection procedure and the duplication of parts allows the system to still function if one of the drive mechanisms would to fail.

Claim 117 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al and "Patient Anesthesia and Monitoring" as applied to claim 54 above, and further in view of Boyd. Body discloses a medical injector device having a battery for powering the injector. It would have been obvious to one skilled in the art to have further modified the prior art system disclosed by applicant such that it includes a battery for powering the infusion apparatus. Such a modification merely involves the substitution of one known type of power source for another.

Claims 118-119,121-125,127,128 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al, "Patient Anesthesia and Monitoring" and MARK V Injection System Brochure. Applicant discloses that it is known to provide a patient infusion system for use with an MRI system having an infusion apparatus positioned within a shielded room and the system controller located external to the room. The infusion apparatus includes an injector and a motor to operate the injector. The prior art disclosed by applicant fails to disclose the use of a non-rigid drive connection or a communication link that comprises a link adapted to be substantially non-reactive with the MRI system. The use of a flexible drive connection between a motor and the injector that it controls is well known as seen in Saini et al. It would have been obvious to one skilled in the art to have modified the prior art device such that the connection between the motor and the injector includes a flexible drive connection. Such a modification merely involves the substitution of one well known type of drive connection for another. The use of fiber optic cables in MRI systems to prevent EM interference is old and well known as seen for example in "Patient Anesthesia and Monitoring". It would have been obvious to one skilled in the art to have further modified the prior art disclosed by applicant such that a fiber optic cable is used to provide a communications link between the external controller and the injector unit. The advantage of such is to prevent EM interference from affecting the system operation. The "Patient Anesthesia and Monitoring" article discloses the use of a window in the shielded room through which the communications link can provide energy. The use of such a window in an MRI suite is old and well known to allow the operator to view the patient during the scanning procedure. Saini et al disclose the use of the Mark V injection system. The injection system includes two syringes and a drive mechanism. It would have been obvious to one skilled in the art to have further modified the prior art disclosed by applicant such that the injection system includes two drive mechanisms, one for each syringes. Such a modification allows for faster operation of the injection procedure and the duplication of parts allows the system to still function if one of the drive mechanisms would to fail. With regard to claim 127, the use of fiber optics includes the transmission of signals in the visual range.

Claim 120 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al, "Patient Anesthesia and Monitoring" and MARK V Injection System Brochure as applied to claim 118 above, and further in view of Boyd. Body discloses a medical injector device having a battery for powering the injector. It would have been obvious to one skilled in the art to have further modified the prior art system disclosed by applicant such that it includes a battery for powering the infusion apparatus. Such a modification merely involves the substitution of one known type of power source for another.

Claim 126 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Saini et al, "Patient Anesthesia and Monitoring" and MARK V Injection System Brochure as applied to claim 124 above, and further in view of Blakeley et al (4,694,837). Blakeley et al discloses an MRI system having a communications link that is adapted to be substantially non-reactive with the MRI system. The link can comprises either an optical fiber arrangement or an infrared link. It would have been obvious to one skilled in the art to have further modified the prior art disclosed by applicant such that the communications link comprises means for transmitting and receiving infrared energy. Such a modification merely involves the substitution of one known type of compatible MRI communications link for another.

Response to Arguments

Applicant's arguments with respect to claims 54-56,59,62,117-128 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S. Smith whose telephone number is 571-272-4745. The examiner can normally be reached on M-F 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ruth S. Smith
Primary Examiner
Art Unit 3737

RSS